



Notes on the Chinese species of *Dianous* group I (Coleoptera, Staphylinidae)

Liang Tang¹, Li-Zhen Li¹

I Department of Biology, Shanghai Normal University, 100 Guilin Road, 1st Educational Building 323 Room, Shanghai, 200234 P. R. China

Corresponding author: Liang Tang (monkey_zzz1980@163.com)

Academic editor: Volker Assing | Received 21 June 2013 | Accepted 21 August 2013 | Published 14 October 2013

Citation: Tang L, Li L-Z (2013) Notes on the Chinese species of *Dianous* group I (Coleoptera, Staphylinidae). ZooKeys 342: 13–19. doi: 10.3897/zookeys.342.5842

Abstract

Dianous zhujianqingi Tang & Li, 2011 **syn. n.** is synonymised with *Dianous cyaneovirens* (Cameron, 1930). Additional records of *Dianous yao* Rougemont, 1981, *Dianous haraldi* Puthz, 2000 and *Dianous huanghaoi* Tang & Li, 2011 are provided.

Keywords

Coleoptera, Staphylinidae, *Dianous*, new synonym, new records

Introduction

The Chinese species of *Dianous* group I were reviewed by Tang and Li in 2011. This group includes nine species: *D. yao* Rougemont, 1981, *D. tonkinensis* (Puthz), 1968, *D. limitaneus* Puthz, 2001, *D. viriditinctus* (Champion), 1920, *D. fengtingae* Tang & Li, 2010, *D. zhujianqingi* Tang & Li, 2010, *D. huanghaoi* Tang & Li, 2010, *Dianous shan* Rougemont, 1981 and *D. viridicupreus* Rougemont, 1985. Subsequently, more material was received. A study of this material yielded new locality records and a new synonymy.

Material and methods

For examination of the male genitalia, the last three abdominal segments were detached from the body after softening in hot water. The aedeagus and other dissected parts were mounted in Euparal (Chroma Gesellschaft Schmidt, Koengen, Germany) on plastic slides. Photos of sexual characters were taken with a Canon G7 attached to an Olympus SZX 16 stereoscope; habitus photos were taken with a Canon macro photo lens MP-E 65 mm attached to a Canon EOS40D camera.

The type specimens treated in this study are deposited in the following public and private collections:

cSme private collection Aleš Smetana, Ottawa, Canada

NHMW Naturhistorisches Museum Wien, Austria (Harald Schillhammer)

SNUC Department of Biology, Shanghai Normal University, P. R. China (Li-Zhen Li)

Taxonomy

Dianous cyaneovirens (Cameron, 1930)

http://species-id.net/wiki/Dianous_cyaneovirens Figs 1, 2, 6

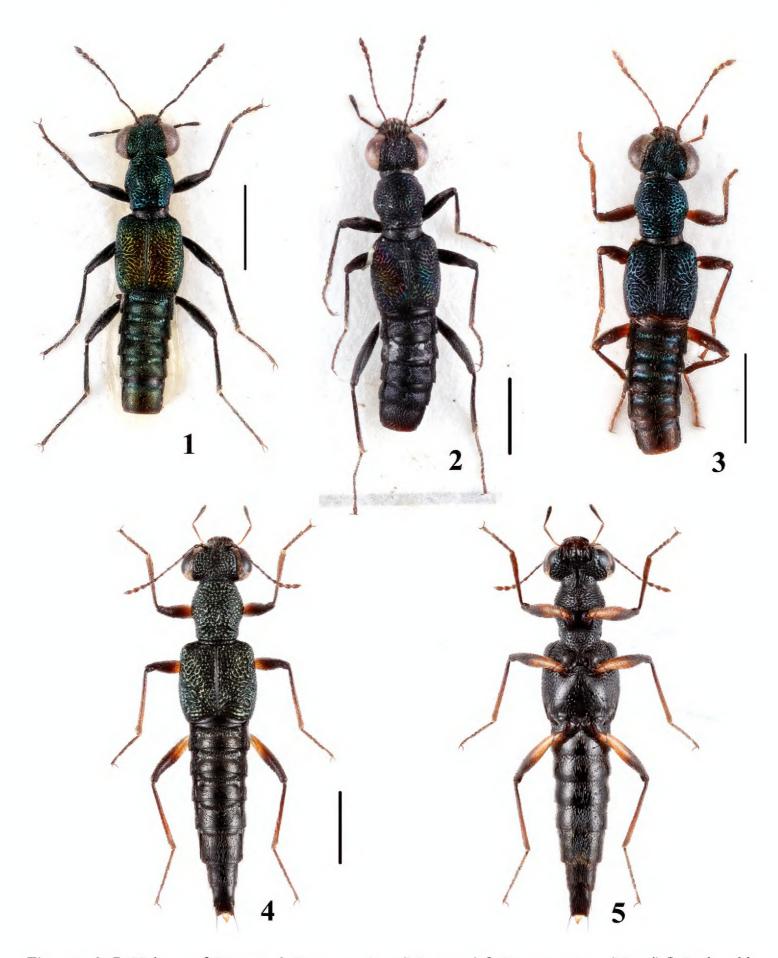
Stenus cyaneovirens Cameron, 1930: 335

Dianous cyaneovirens; Puthz 1981: 106; Rougemont 1985: 131; Rougemont 1987: 49. Dianous zhujianqingi Tang & Li, 2011: 73. syn. n.

Material examined. China: Jiangxi, Guizhou: Type series of *D. zhujianqingi* (SNUC); Guangxi: 1♂, Jinxiu County, 16 km, 900m, 29.VII.2011, Peng Zhong leg.; 1♀, Jinxiu County, Shengtangshan, 800–1100m, 28.VII.2011, Peng Zhong leg. (SNUC); Yunnan: 6♂♂14♀♀, Baoshan City, Baihualing, 1100-1350m, 25°16′N, 98°47′E, 22.IV. 2013, Song, Dai & Peng leg. (SNUC); Myanmar: 1♂1♀, Kachin State, ca. 12 km S Putao, W Mularshidi Vill., 500–550m, 27°14.98′N, 97°24.40′E, 2.VI.1999, Schillhammer & Schuh leg. (NHMW); Nepal: 1♂2♀♀, Khandbari Dis., Arun Valley at Num main bridge, 1000m, 21.IV.1984, Smetana & Löbl leg. (cSme); 1♂, Khandbari Dis., Induwa Khola Valley, 2000m, 15.IV.84, Smetana & Löbl leg. (cSme)

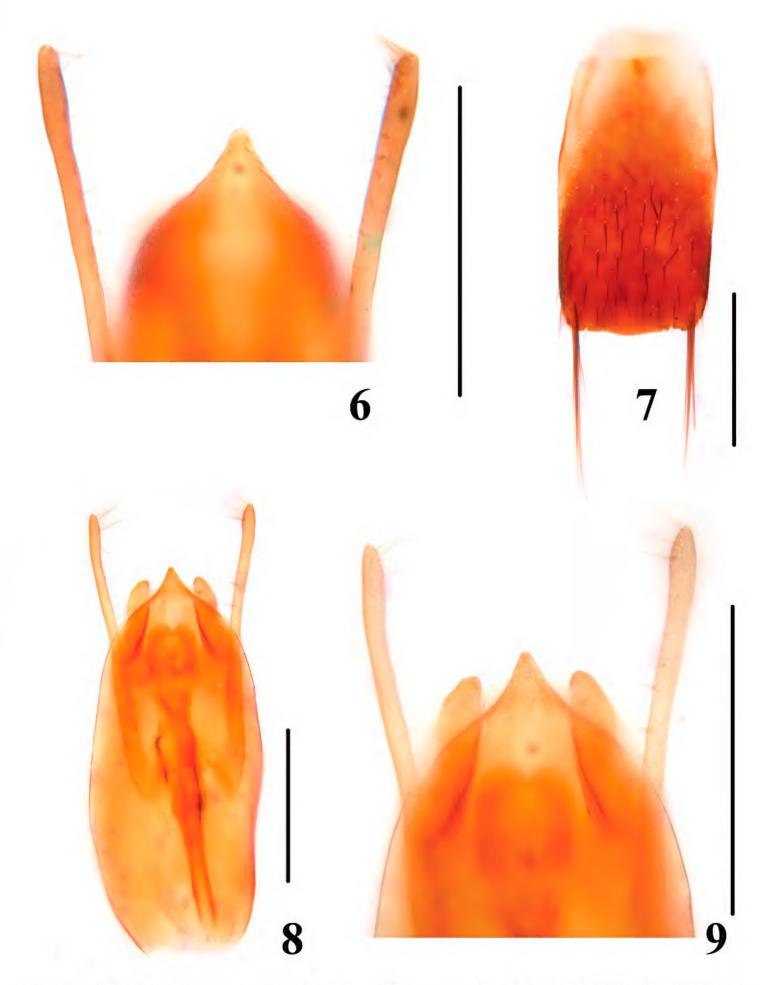
Distribution. China (Jiangxi, Guizhou, Guangxi, Yunnan), Myanmar, Nepal.

Remarks. The species is reported from the Chinese provinces Yunnan and Guangxi and from Myanmar for the first time. According to the original description of *D. zhujianqingi*, the main differences between this species and *D. cyaneovirens* are the different coloration and different lengths of the apical portion of the median lobe. Additionally, there was a huge distributional gap between Nepal and East China. However, with more material examined, this distribution gap is filled. The coloration of the species is found to be greatly variable: in the Nepalese populations, the metallic



Figures I–5. Habitus of *Dianous.* **I** *D. cyaneovirens* (Myanmar) **2** *D. cyaneovirens* (Nepal) **3** D. *haraldi* **4, 5** *D. yao.* Scales = 1 mm.

tint of the species varies from golden green to blackish blue, while it is golden green or blue in specimens from Myanmar and China (Guangxi and Yunnan). In the type series of *D. zhujianqingi*, all 39 specimens have a faint plumb-coloured tint, except for two specimens from Jiangxi which have a strong brassy tint. The length of the api-



Figures 6–9. 6 apical portion of median lobe of *D. cyaneovirens* (Myanmar) **7–9** *D. haraldi:* **7** male sternite IX **8** aedeagus **9** apical portion of median lobe. Scales = 0.25 mm.

cal portion of the median lobe is also variable: the length is intermediate in specimens from Myanmar and China (Yunnan and Guangxi). For these reasons, *D. zhujianqingi* is synonymised with *D. cyaneovirens*.

Dianous haraldi Puthz, 2000

http://species-id.net/wiki/Dianous_haraldi Figs 3, 7–9

Dianous haraldi Puthz, 2000: 432.

Material examined. China: Yunnan: 13, Xishuangbanna, ca. 6km NW Mengla, 700m, 8.VIII.1999, Jäch et al. leg. (CWBS 356) (NHMW)

Distribution. China (Yunnan), Laos.

Remarks. The species is a new record for China

To accommodate *D. haraldi*, the recently published key to the Chinese species of *Dianous* group I (Tang, Li and Cao 2012) is modified at couplet 6 as follows:

6	Forebody black with plumb-coloured lustre, sometimes elytra with brassy
	reflection; femora unicolored
_	Forebody distinctly metallic blue; femora bicolored
7a	Punctation of elytra more confluent; posterior margin of male sternite VII
	with indistinct median emargination. Habitus (Fig 3), aedeagus (Fig 8, 9)
_	Punctation of elytra less confluent; posterior margin of male sternite VII with
	deep median emargination8

Dianous huanghaoi Tang & Li, 2011

http://species-id.net/wiki/Dianous_huanghaoi

Dianous huanghaoi Tang & Li, 2011: 75.

Material examined. China: Yunnan: 1 \circlearrowleft , Binchuan County, Jizushan, 2400m, 18.VII.2010, Tang leg. (SNUC)

Distribution. China (Yunnan).

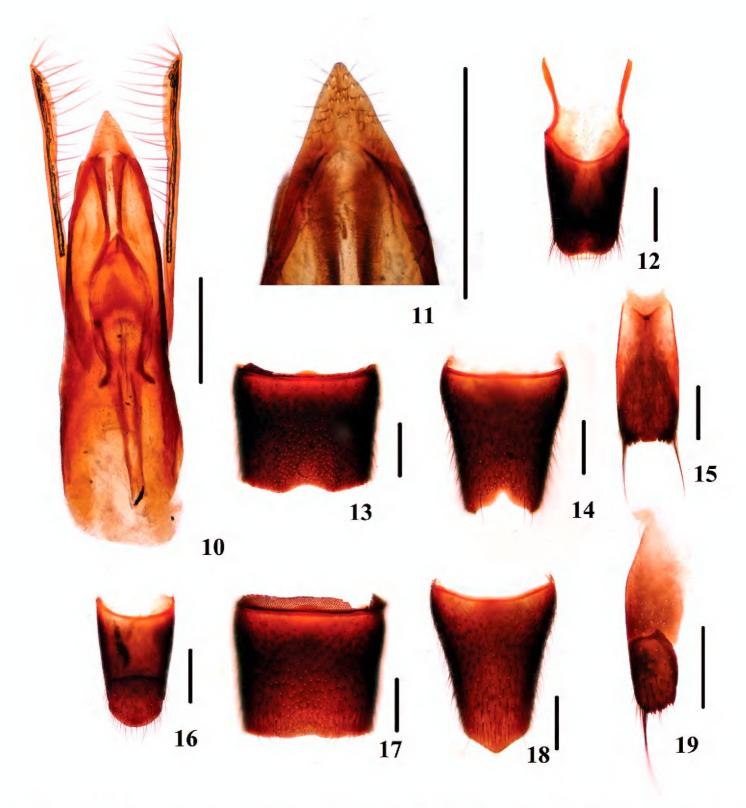
Remarks. Previously, the species was only known from Yulongshan and Hutiaoxia in Yunnan.

Dianous yao Rougemont, 1981

http://species-id.net/wiki/Dianous_yao Figs 4, 5, 10–19

Dianous yao Rougemont, 1981: 330.

Material examined. China: Yunnan: 35 33199, Baoshan City, Baihualing, 1100-1350m, 25°16'N, 98°47'E, 22.IV. 2013, Song, Dai & Peng leg. (SNUC)



Figures 10–19. Sexual characters of *D. yao.* **10** aedeagus **11** apical portion of median lobe **12** tergites IX uand X **13** male sternite VII **14** male sternite VIII **15** male sternite IX **16** female tergites IX and X **17** female sternite VII **18** female sternite VIII **15** valvifer. Scales = 0.25 mm.

Distribution. China (Guizhou, Yunnan); Myanmar, Thailand. **Remarks.** The species is new to the Chinese province Yunnan.

Acknowledgements

We would like to express our sincere gratitude to Dr. V. Puthz (Germany) for his kind guidance on our study, to Dr. A. Smetana and Dr. H. Schillhammer for the loan of mate-

rial, and to all the collectors mentioned in the paper. The research was supported by the National Natural Science Foundation of China (No. 31101659 and No. 31172134), the National Natural Science Foundation of Shanghai (No. 10ZR1421600) and the Innovation Program of Shanghai Municipal Education Commission (No. 12YZ077).

References

- Cameron M (1930) The fauna of British India including Ceylon and Burma. Coleoptera. Staphylinidae. Vol. 1: xvii+ 1–471. Taylor and Francis, London.
- Rougemont G-M de (1981) New and little known Steninae from Burma (Coleoptera Staphylinidae). Annali del Museo Civico di Storia Naturale di Genova 83: 325–348.
- Puthz V (1981) Was ist *Dianous* Leach, 1819, was ist *Stenus* Latreille, 1796? oder Die Aporie des Stenologen und ihre taxonomischen Konsequenzen (Coleoptera, Staphylinidae). Entomologische Abhandlungen, Staatliches Museum für Tierkunde, Dresden 44(6): 87–132.
- Puthz V (2000) The genus *Dianous* Leach in China (Coleoptera, Staphylinidae). 261. Contribution to the knowledge of Steninae. Revue Suisse de Zoologie 107(3): 419–559.
- Tang L, Li L-Z, Cao G-H (2011) On Chinese species of *Dianous* group I (Coleoptera, Staphylinidae, Steninae). ZooKeys 111: 67–85. doi: 10.3897/zookeys.111.1431